## ABSTRACT OF THE DISCLOSURE

A control system for a plant is disclosed. The control system includes a controller for controlling the plant based on a controlled object model which is obtained by modeling the plant. The controlled object model is modeled using an input and an output of the plant which are sampled at intervals of a sampling period which is longer than a control period of the controller. The sampled input of the plant is a filtered control output which is obtained by filtering an output of the controller. The controller carries out a control process of the plant at intervals of the control period.